

## CLAIMS

What is claimed is:

- 1        1.    A system comprising:  
2                a data filter coupled to a text-to-image converter for  
3    converting filtered data into a set of digital images, the set of  
4    digital images being defined as a set of texture maps; and  
5                a memory analyzer for analyzing set-top box layout and  
6    indicating available memory types, the memory analyzer being  
7    coupled to a memory distributor, the memory distributor for  
8    distributing texture maps.
- 1        2.    The system of claim 1, wherein a total size of the set  
2    of texture maps is a sum of all texture map sizes.
- 1        3.    The system of claim 2, further comprising:  
2                a processor coupled to the data filter, the processor  
3    executing a first logic in which the total size of the set of  
4    texture maps is less than or equal to a memory size; and  
5                a second logic if the total size of the set of texture  
6    maps is greater than the memory size, then dividing the set of  
7    texture maps into at least two groups.
- 1        4.    The system of claim 3, wherein a total size of the first  
2    group is the largest possible sum of texture map sizes for which  
3    the total size of the first group is less than the memory size.

1 5. The system of claim 3, wherein a total size of the  
2 second group is the difference between the total size of the set  
3 of texture maps and the total size of the first group.

1 6. The system of claim 3, wherein the set of texture maps  
2 of the first group is stored in a first memory.

1 7. The system of claim 3, wherein the set of texture maps  
2 of the second group is stored in a second memory.

1 8. The system of claim 3, wherein the set of texture maps  
2 of the second group are compressed to fit into the first memory.

1 9. The system of claim 8, further comprising a compression  
2 engine.

1 10. A method comprising:  
2 computing a total size of a set of texture maps;  
3 comparing the total size of the set of texture maps with  
4 a memory size;  
5 dividing the set of texture maps into at least two  
6 groups if the total size of the set of texture maps is larger than  
7 the memory size, such that the total size of the texture maps in a  
8 first group is the largest possible sum of texture map sizes for  
9 which the total size of texture maps in the first group is less  
10 than the memory size.

1 11. The method of claim 10 wherein computing a total size of  
2 a set of texture maps comprises:

3 computing a sum of all texture map sizes.

1 12. The method of claim 10 further comprising:

2 storing the set of texture maps in a first memory if the  
3 total size of the set of texture maps is less than or equal to the  
4 first memory size.

1 13. The method of claim 10 further comprising:

2 storing a first group of texture maps in a first memory.

1 14. The method of claim 10 further comprising:

2 storing a second group of texture maps in a second  
3 memory.

1 15. The method of claim 14 further comprising:

2 compressing the second group of texture maps to fit into  
3 C memory if B memory is not available.

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